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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/780,590

02/08/2001

Todd Sutton

QCPA568CIPC

9008

23696

7590

12/27/2004

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

VINCENT, DAVID ROBERT

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/780,590

Applicant(s)

SUTTON ET AL.

Examiner

David R Vincent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-10, 12-30, 32-38 and 40-49 is/are rejected.
- 7) ☐ Claim(s) 11, 31 and 39 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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Claim Objections

1. Claim 47 is objected to because of the following informalities: Claim 47 is so broad that it doesn't even specify the term buffer after the term successive. This claim may have been a typographical error because it is not even directed to the same combination of limitations in the other independent claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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Claims 32-35, 37-38, 40-43, 45-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Cam (US 5,875,192).

Cam discloses a first rate (data 21 coming into inverse mux, 11, Fig. 1-2), a second rate (data on T1 or E1 lines between inverse muxes, 11 and 12, Fig. 1-2), parsing (reading the ATM headers separating the headers and payload before sending over a T1/E1 line, e.g., Figs. 1-2) data frames (not further defined, reads on frames, cells, packets, datagrams) into frames at a second rate (e.g., Figs. 1-2; col. 1, lines 10-34), sending frames the second entity (mux 12 at destination), via a plurality of connections (T1/E1 lines, Fig. 2; col. 1), receiving and buffering at the second entity (e.g., col. 7, lines 64-65; col. 6, lines 11-67, especially lines 30-34; col. 7, lines 16-25; and lines 46-67), multiplexing back to the first rate (Fig. 2; col. 6, lines 10-67), plurality of connections include associated buffers (col. 5-7, especially col. 6, lines 30-34), determining whether a predetermined threshold (e.g., circular buffer limit, col. 6, especially 59-61; exceeding a buffer count, col. 7, lines 21-25) exceeds the number of bytes stored (counting cells, using a fixed size block or programming the buffer to operate as a circular buffer wherein one knows where cells are stored, how many bytes are stored and where to store the next cell, col. 6, lines 30-67), determining if

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connection is functioning (is link/T1/E1 putting out errors or valid frames, e.g., col. 7, lines 6-16), using FIFOs (e.g., col. 5, lines 15-34), T1/E1 lines (col. 1), connections are ATM (col. 1, Figs. 1-2 and respective disclosure), removing frames at a constant rate (e.g., removing the T1 frames from the receiving side buffers, col. 6) wherein the placing step is performed periodically at a rate equal to the constant rate multiplied by the number of buffers (Figs. 3-9, and respective disclosure e.g., col. 6), buffers less than 16 bytes (col. 6, lines 30-34; col. 8, line 6), removing a data frame from a first buffer determined to contain more bytes than the threshold (reads on overflowing and discarding or col. 6, lines 10-67, especially lines 58-61; or col. 7, lines 21-25), removing a data frame from a buffer determined to contain the most data (reads on using round robin wherein sooner or later the reading device reads out from a buffer who has the most data or cols. 1 or 5-7, especially col. 5, lines 45-46; col. 6, lines 58-61; col. 7, lines 21-25), removing a data frame from a buffer determined to contain the least data (reads on using round robin wherein sooner or later the reading device reads out from a buffer who has the most data or cols. 1, or 5-6, especially col. 6, lines 58-61).

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 12-30, 36, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cam (US 5,875,192), as set forth above, in view of Peterson (US 6,574,221).

However, Cam fails to particularly call for being coupled to a WAN, using IP, having the first entity be a BS/BSC and have the second entity be a BCS/BS.

Peterson teaches using WANs (114, Fig. 6 and respective disclosure), IP (Fig. 6), using ATM with BSCs and base stations (Fig. 1).

It would have been obvious to use a WAN such as the Internet and IP or TCP/IP since by doing so would enable one to communicate with a large amount of people and interface with many servers on the Internet. IP can run over ATM using adaptation layers, e.g., AAL 5. One reason organizations inverse mux data is so that they can connect high speed lines to their existing, older lower speed lines.that they paid to

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install previously. It is obvious that this can be done in many different networks and environments such as between BSs and BSC because it can be difficult to remove older T1 lines that were installed in a mobile network just to replace them with newer high speed fibers.

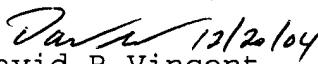
4. Claims 11, 31, and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R Vincent whose telephone number is 571 272 3080. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571 272 3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 12/20/04
David R Vincent
Primary Examiner
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December 20, 2004